

## INVENTION TITLE

Bridge converting movement into electrical energy.

## DESCRIPTION

### Heading

Cross-Reference to Canadian application for Bridge Converting Movement into Electrical Energy

[Para 1] This patent application is related to a Patent Application in Canada. The title of this application is : Bridge converting movement into electrical energy. The number of the Canadian Patent application is : 2 446 783. The filing date of this application is October 27<sup>th</sup>, 2003. The sole inventor of this invention is the same as this one, meaning: Alain Painchaud.

### Heading

Background of the Invention

[Para 2] Technical field: According to my understanding, the technical field of this invention would pertain to class 322 ( Electricity: single generating systems ) and subclass 4 ( with Flywheels of massive moving parts ). So, this invention relates to the recuperation of the loss of energy of weights, vehicles, cars or trucks ( " vehicles " ) going down a hill or decelerating, in order to produce rotation and ultimately, generate electricity. This is done with small modules of bridge that could be added to existing roads.

Background Art: Toberman, Sen and Lin have found inventions similar to my invention. However, I think that my invention is unique due to that:

Difference with Toberman:

In the invention from Toberman, for example, the crankshaft is perpendicular to the road so that when vehicles pass on it, it does a full turn or more. Then, when the next vehicles pass on it, it may turn the other way around, if the

sequence is not good. The fact that he claimed it to be perpendicular limits him to couple only one moving part to the crankshaft. Also, Toberman invention is mounted beneath the expressway. In the case of my invention, the crankshaft and roller are parallel to the expressway and could be above as well as beneath or on the expressway, so that if there are drains in certain area, it is possible to put the bridge above highway / road. This also means that I can couple more than one moving road segment to the crankshaft, due to that it acts really like a gravitational motor. The inventive part of my invention is that I use the distance to generate a full turn of the crankshaft ( parallel with the road instead of perpendicular ). This difference is what makes my invention an invention that works and that you will see on the roads / airports / stops / etc... a few months after I get my patent.

#### Difference with Sen:

Regarding the patent of Mr. Sen, again, his device is perpendicular to the road and this brings a major difference, as explained above. Also, this refers to an " underground " system. In my case, the crankshaft is parallel so that I use